We claim:

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At

1.   A computerized method for updating a version of an object having a property, the

method comprising:

receiving an updated value for the property;

5   setting an end version field in a first data structure to a value representing a

predecessor version of the object;

creating a second data structure;

setting a start version field in the second data structure to a value representing a new

version of the object; and

10   setting an end version field in the second data structure to a value representing a most

recent version of the object.

2.   The computerized method of claim 1, further comprising setting a property value field

to the updated value.

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3.   The computerized method of claim 1, wherein the value representing the most recent

value is infinity.

4.   The computerized method of claim 1, wherein the data structure is a row in a database.

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5.   The computerized method of claim 1, wherein the object is a COM (Component

37

Object Model) object.

6.   A computer-readable medium having a data structure stored thereon, the medium

comprising:

5   a first field comprising a key for the data structure;

           a second field comprising a start version identifier;

           a third field comprising an end version identifier;

           a fourth field comprising a property value; and

           wherein the second and third field define a range of versions of an object identified by

10   the first field having the property value in the fourth field.

7.   The computer-readable medium of claim 6, wherein the first field comprises an object

identifier and a branch identifier.

15   8.   A computer-readable medium having computer-executable instructions for updating a

version of an object having a property, the method comprising:

           receiving an updated value for the property;

           setting an end version field in a first data structure to a value representing a

predecessor version of the object;

20   creating a second data structure;

           setting a start version field in the second data structure to a value representing a new

38

version of the object; and

setting an end version field in the second data structure to a value representing a most recent version of the object.

5   9.   The computer-readable medium of claim 8, further comprising setting a property value field to the updated value.

10.   The computer-readable medium of claim 8, wherein the value representing the most recent value is infinity.

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11.   The computer-readable medium of claim 8, wherein the data structure is a row in a database.

12.   The computer-readable medium of claim 8, wherein the object is a COM (Component

15   Object Model) object.

13.   A method for propagating a relationship of a predecessor object to a successor object, said relationship having an origin object and a destination object, the method comprising:

reading a propagation flag on the relationship; and

20   if the propagation flag is set then performing the tasks of:

determining if a new version of the destination object has been added;

upon determining the new version has been added:

    setting an end version field in a first data structure with a value

representing a predecessor version of the object;

    creating a second data structure;

5   setting a start version in the second data structure to a value

representing the successor version.

14.   The computerized method of claim 13, wherein the predecessor object and the

successor object are COM objects.

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15.   A computer-readable medium having computer executable instructions for performing

a method for propagating a relationship of a predecessor object to a successor object, said

relationship having an origin object and a destination object, the method comprising:

    reading a propagation flag on the relationship; and

15   if the propagation flag is set then performing the tasks of:

    determining if a new version of the destination object has been added;

    upon determining the new version has been added:

    setting an end version field in a first data structure with a value

representing a predecessor version of the object;

20   creating a second data structure;

    setting a start version in the second data structure to a value

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representing the successor version.

16.   The computer-readable medium of claim 15, wherein the predecessor object and the successor object are COM objects.

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17.   A computerized method for accessing a versioned object, the method comprising:

determining a context for the versioned object; and

determining the version of the object based on the context of the versioned object.

10   18.   The computerized method of claim 17, wherein accessing the versioned object is performed by traversing a relationship associated with a second versioned object in the context to reach the first versioned object and thereby access it.

19.   The computerized method of claim 17, wherein determining a context comprises

15   determining that the versioned object is in a workspace, and wherein determining the destination object comprises selecting the destination object from the workspace.

20.   The computerized method of claim 17, wherein determining a context comprises determining that a pinned destination object exists, and wherein determining the destination

20   object comprises selecting the pinned destination object.

41

21.   The computerized method of claim 17, wherein determining a context comprises

determining that the versioned object is not in a workspace, and wherein determining the

destination object comprises selecting the most recent destination object from a repository.

5   22.   The computerized method of claim 17, wherein the versioned object and the

destination object are COM objects.

23.   A computerized method for merging a first version of an object having a set of

properties with a second version of an object having properties, the method comprising:

10   designating the first version of the object as a primary object;

          for each property in the primary object:

               comparing a value of the property with a value of a corresponding property in

the second object; and

               if the values are different, setting a value in a resultant object based on the

15   comparison, otherwise setting the value in the resultant object to the value of the

          property.

24.   The computerized method of claim 23, wherein setting a value in a resultant object

based on the comparison comprises selecting a value from the primary object.

20   25.   The computerized method of claim 23, wherein setting a value in a resultant object

based on the comparison comprises selecting a value from the primary object if the primary

42

object has updated the value.

26.   The computerized method of claim 23, wherein setting a value in a resultant object based on the comparison comprises deleting the property from the resultant object if the

5   property has been deleted from the primary object.

27.   The computerized method of claim 23, wherein setting a value in a resultant object based on the comparison comprises inserting the property into the resultant object if the

property has been inserted in the primary object.

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28.   The computerized method of claim 23, wherein setting a value in a resultant object based on the comparison comprises deleting the property from the resultant object if the property has been deleted from the second object and the property has not been changed in the primary object.

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29   The computerized method of claim 23, wherein setting a value in a resultant object based on the comparison comprises inserting the property into the resultant object if the property has been inserted into the second object and the property has not been changed in the primary object.

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30.   The computerized method of claim 23, wherein setting a value in a resultant object

43

based on the comparison comprises selecting the value of the property from the second object

if the value of the property has been updated in the second object and the property has not

been changed in the primary object.

5   31.   A computerized system for maintaining a workspace in an object repository

comprising:

    a repository module operative to store objects, said objects having versions;

    a session interface to the repository module; said session interface including methods

requiring a session handle parameter;

10   a workspace interface to the repository module; said workspace interface including

methods requiring a workspace handle parameter;

    wherein the workspace handle parameter can be supplied to the methods requiring the

session handle parameter.

15   32.   The computerized system of claim 31, wherein the object repository is operative to

store COM objects.

    33.   The computerized system of claim 31, wherein the session interface is operative to

manipulate plurality of versions of an object and wherein the workspace interface is operative

20   to manipulate a single version of an object.

44

34.   A computerized system for maintaining a repository comprising:

an object stored within the repository, the object having a version, the version having a

context pointer;

a workspace within the repository, said workspace operative to hold a version of the

5   object in the repository; and

wherein the context pointer of the version of the object is set to the workspace holding

the version of the object when the version of the object is in the workspace.

35.   The computerized system of claim 34, wherein the context pointer of the version of the

10   object is set to the repository when the version of the object is not in a workspace.

36.   The computerized system of claim 34, wherein the object is a COM object.